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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
TORRES, ALICIA M	

ART UNIT	PAPER NUMBER
3671	

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/764,695	SERDAN, MARK I.	
	Examiner	Art Unit	
	Alicia M Torres	3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/26/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Objections

1. Claim 3 is objected to because of the following informalities: the period is missing from the end of the claim. Appropriate correction is required.

DETAILED ACTION

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Vandermeulen et al., hereafter Vandermeulen.

4. In regards to claims 1-5, Vandermeulen discloses a spindle assembly for a lawnmower having a deck and a blade mounted for rotation with respect to the deck, the spindle assembly comprising:

a housing (20) defining an opening (44) and being connectable to the deck (45);

a spindle (15) at least partially disposed within the housing (20) and having an end extending through the opening (44) and beyond the housing (20), and being mounted for rotation with respect to the housing (20) about a rotational axis;

at least one bearing (25) disposed within the housing (20) and connecting the spindle (15) to the housing (20) for rotational movement; and

a seal (40) disposed within the housing (20) between the opening (44) and the at least one bearing (25) to resist materials from passing from the opening (44) to the at least one bearing (25), as per claim 1; and

wherein the spindle (15) includes a flange (30) extending radially outwardly from the end of the spindle (15) within the opening (44) and being spaced from the housing (20), the blade (not shown) being connectable to the flange (30), as per claim 2; and

wherein the seal (40) is disposed between the flange (30) and the at least one bearing (25), as per claim 3; and

wherein the seal (40) is fixed with respect to the housing (20) and the spindle (15) is rotatable with respect to the seal (40), as per claim 4; and

wherein the seal (40) is connected to the housing (20) with an interference fit, as per claim 5.

5. Claims 1 and 6-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Scag.

6. In regards to claims 1 and 6-10, Scag discloses a spindle assembly for a lawnmower having a deck and a blade mounted for rotation with respect to the deck, the spindle assembly comprising:

a housing (11) defining an opening (unnumbered) and being connectable to the deck (17);

a spindle (12) at least partially disposed within the housing (11) and having an end extending through the opening and beyond the housing (11), and being mounted for rotation with respect to the housing (11) about a rotational axis;

at least one bearing (24) disposed within the housing (11) and connecting the spindle (12) to the housing (11) for rotational movement; and

a seal (56) disposed within the housing (11) between the opening and the at least one bearing (24) to resist materials from passing from the opening to the at least one bearing (24), as per claim 1; and

wherein the seal (56) is a generally ring shaped member extending around the spindle (12) and comprises a body having an outer ring portion (80) contacting the housing (11) and an inner ring portion (75) and a lip (76, 77) connected to the inner ring portion (75) and contacting the spindle (12), as per claim 6; and

wherein the body (80) is made from a rigid material and the lip (76,77) is made from a flexible material, as per claim 7;

wherein the body (80) is entirely surrounded by a flexible rubber material, as per claim 8; and

wherein the lip (76, 77) is bonded to the body (80), as per claim 9; and

wherein the lip (76, 77) includes two ring shaped portions spaced apart from one another and contacting the spindle (12), as per claim 10.

7. In regards to claims 11-15, Scag discloses a spindle mssembly for a lawnmower having a deck and a blade mounted for rotation with respect to the deck, the spindle assembly comprising:

a housing (11) defining an opening and being connectable to the deck (17);

a spindle (12) at least partially disposed within the housing (11) and being mounted for rotation with respect to the housing (11) about a rotational axis, and having a

flange (66) extending radially outwardly from the spindle (12) within the opening and being spaced from the housing (12), the blade (16) being connectable to the flange (66);

at least one bearing (24) disposed within the housing (11) and connecting the spindle (12) to the housing (11) for rotational movement; and

a seal (56) exposed within the housing (11) between the flange (66) and the at least one bearing (24) to resist materials from passing from the opening to the at least one bearing (24), the seal (56) being a generally ring shaped member extending around the spindle (12) comprising a body made from a rigid material and having an outer ring portion (80) connected to the housing (11) and an inner ring portion (75) and a lip (76, 77) made from a flexible material and connected to the inner ring portion (80) and contacting the spindle (12), the seal (56) being fixed with respect to the housing (11) and the spindle (12) being rotatable with respect to the seal (56), as per claim 11; and

wherein the seal (56) is connected to the housing (11) with an interference fit, as per claim 12;

wherein the body (80) is entirely surrounded by a flexible rubber material, as per claim 13; and.

wherein the lip (76, 77) is bonded to the body, as per claim 14; and

wherein the lip (76, 77) includes two ring shaped portions spaced apart from one another and contacting the spindle (12), as per claim 15.

8. In regards to claims 16-20, Scag discloses a spindle assembly for a lawnmower having a deck and a blade mounted for rotation with respect to the deck, the spindle assembly comprising:

a housing (11) defining an opening and being connectable to the deck (17);

a spindle (12) at least partially disposed within the housing (11) and having an end extending through the opening and beyond the housing (11), and being mounted for rotation with respect to the housing (11) about a rotational axis;

at least one bearing (24) disposed within the housing (11) and connecting the spindle (12) to the housing (24) for rotational movement; and

a sealing means (56) disposed between the opening and the at least one bearing (24) for resisting materials from passing from the opening to the at least one bearing (24), as per claim 16; and

wherein the sealing means (56) includes a rigid support means (80) connected to the housing (11) and a flexible contacting means (75) contacting the spindle (12), as per claim 17;

wherein the rigid support portion (80) is fixed with respect to the housing (11) and the spindle (12) is rotatable with respect to the flexible contacting means (75), as per claim 18;

wherein the flexible contacting means (75) includes two ring shaped portions (76, 77) spaced apart from one another and contacting the spindle (12), as per claim 19;

wherein the rigid support means (80) is connected to the housing (80) with an interference fit, as per claim 20.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kocian, Zurek et al., and Kuhn et al. have been cited as of interest.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Torres whose telephone number is 703-305-6953. The examiner can normally be reached Monday through Thursday from 7:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at 703-308-3870.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is 703-305-1113. The fax number for this Group is 703-872-9306.

Thomas B. Will
Supervisory Patent Examiner
Group Art Unit 3671

AMT
August 5, 2004